RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: _10/563,976 A_

Source: _1FWO_

Date Processed by STIC: _6/30/06_

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RAW SEQUENCE LISTING   DATE: 06/30/2006
PATENT APPLICATION: US/10/563,976A   TIME: 10:24:39

Input Set : E:\HOI-14402.ST25.txt
Output Set: N:\CRF4\06302006\J563976A.raw

```
 3 <110> APPLICANT: Sorensen, Anders Per
 4        Benfield, Thomas Lars
 5        Lundgren, Jens Dilling
 6        Kempe, Thomas D.
 8 <120> TITLE OF INVENTION: BINDING MEMBER TOWARDS PNEUMOCOCCUS SURFACE ADHESIN A
PROTEIN
 9        (PsaA)
11 <130> FILE REFERENCE: HOI-14402/16
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/563,976A
C--> 13 <141> CURRENT FILING DATE: 2006-01-09
13 <150> PRIOR APPLICATION NUMBER: PCT/DK04/000492
14 <151> PRIOR FILING DATE: 2004-07-08
16 <150> PRIOR APPLICATION NUMBER: US 60/486,647
17 <151> PRIOR FILING DATE: 2003-07-11
19 <150> PRIOR APPLICATION NUMBER: PA 2003 01044
20 <151> PRIOR FILING DATE: 2003-07-08
22 <160> NUMBER OF SEQ ID NOS: 56
24 <170> SOFTWARE: PatentIn version 3.3
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 33
28 <212> TYPE: DNA
29 <213> ORGANISM: Homo sapiens
32 <220> FEATURE:
33 <221> NAME/KEY: CDS
34 <222> LOCATION: (1)..(33)
35 <223> OTHER INFORMATION: Sequence from human antibody generated in mouse.
37 <400> SEQUENCE: 1
38 cgg gcg agt cag ggt att agc agc tgg tta gcc                         33
39 Arg Ala Ser Gln Gly Ile Ser Ser Trp Leu Ala
40 1               5                   10
43 <210> SEQ ID NO: 2
44 <211> LENGTH: 11
45 <212> TYPE: PRT
46 <213> ORGANISM: Homo sapiens
48 <400> SEQUENCE: 2
50 Arg Ala Ser Gln Gly Ile Ser Ser Trp Leu Ala
51 1               5                   10
54 <210> SEQ ID NO: 3
55 <211> LENGTH: 21
56 <212> TYPE: DNA
57 <213> ORGANISM: Homo sapiens
60 <220> FEATURE:
61 <221> NAME/KEY: CDS
62 <222> LOCATION: (1)..(21)
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 63 <223> OTHER INFORMATION: Sequence from human antibody generated in mouse.
 65 <400> SEQUENCE: 3
 66 gtt gca tcc agt ttg caa agt                                              21
 67 Val Ala Ser Ser Leu Gln Ser
 68 1               5
 71 <210> SEQ ID NO: 4
 72 <211> LENGTH: 7
 73 <212> TYPE: PRT
 74 <213> ORGANISM: Homo sapiens
 76 <400> SEQUENCE: 4
 78 Val Ala Ser Ser Leu Gln Ser
 79 1               5
 82 <210> SEQ ID NO: 5
 83 <211> LENGTH: 27
 84 <212> TYPE: DNA
 85 <213> ORGANISM: Homo sapiens
 88 <220> FEATURE:
 89 <221> NAME/KEY: CDS
 90 <222> LOCATION: (1)..(27)
 91 <223> OTHER INFORMATION: Sequence from human antibody generated in mouse.
 93 <400> SEQUENCE: 5
 94 caa cag tat aat agc tat cct ccg acg                                      27
 95 Gln Gln Tyr Asn Ser Tyr Pro Pro Thr
 96 1               5
 99 <210> SEQ ID NO: 6
100 <211> LENGTH: 9
101 <212> TYPE: PRT
102 <213> ORGANISM: Homo sapiens
104 <400> SEQUENCE: 6
106 Gln Gln Tyr Asn Ser Tyr Pro Pro Thr
107 1               5
110 <210> SEQ ID NO: 7
111 <211> LENGTH: 321
112 <212> TYPE: DNA
113 <213> ORGANISM: Homo sapiens
116 <220> FEATURE:
117 <221> NAME/KEY: CDS
118 <222> LOCATION: (1)..(321)
119 <223> OTHER INFORMATION: Sequence from human antibody generated in mouse. V-segment:
4-34
120      and J-segment: JK1
122 <220> FEATURE:
W--> 123 <221> NAME/KEY: CDR1
124 <222> LOCATION: (70)..(120)
126 <220> FEATURE:
W--> 127 <221> NAME/KEY: CDR2
128 <222> LOCATION: (148)..(168)
130 <220> FEATURE:
W--> 131 <221> NAME/KEY: CDR3
132 <222> LOCATION: (265)..(291)
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134 <400> SEQUENCE: 7
135 gac atc cag atg acc cag tct cca tcc tca ctg tct gca tct gta gga        48
136 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
137 1               5                   10                  15
139 gac aga gtc acc atc act tgt cgg gcg agt cag ggt att agc agc tgg        96
140 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
141             20                  25              .       30
143 tta gcc tgg tat cag cag aaa cca gag aaa gcc cct gag tcc ctg atc       144
144 Leu Ala Trp Tyr Gln Gln Lys Pro Glu Lys Ala Pro Glu Ser Leu Ile
145         35                  40                  45
147 tat gtt gca tcc agt ttg caa agt ggg gtc cca tca agg ttc agc ggc       192
148 Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
149     50                  55                  60
151 agt gga tct ggg aca gat ttc act ctc acc atc agc agc ctg cag cct       240
152 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
153 65                  70                  75                  80
155 gaa gat ttt gca act tat tac tgc caa cag tat aat agc tat cct ccg       288
156 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Pro Pro
157                 85              .   90 . . .             95
159 acg ttc ggc caa ggg acc aag gtg gaa atc aaa                           321
160 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
161                 100                 105
164 <210> SEQ ID NO: 8
165 <211> LENGTH: 107
166 <212> TYPE: PRT
167 <213> ORGANISM: Homo sapiens
169 <400> SEQUENCE: 8
171 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
172 1               5                   10                  15
175 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
176             20                  25                  30
179 Leu Ala Trp Tyr Gln Gln Lys Pro Glu Lys Ala Pro Glu Ser Leu Ile
180         35                  40                  45
183 Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
184     50                  55                  60
187 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
188 65                  70                  75                  80
191 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Pro Pro
192                 85                  90                  95
195 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
196                 100                 105
199 <210> SEQ ID NO: 9
200 <211> LENGTH: 15
201 <212> TYPE: DNA
202 <213> ORGANISM: Homo sapiens
205 <220> FEATURE:
206 <221> NAME/KEY: CDS
207 <222> LOCATION: (1)..(15)
208 <223> OTHER INFORMATION: Sequence from human antibody generated in mouse.
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210 <400> SEQUENCE: 9
211 ggt ttc tcc tgg agc                                                    15
212 Gly Phe Ser Trp Ser
213 1               5
216 <210> SEQ ID NO: 10
217 <211> LENGTH: 5
218 <212> TYPE: PRT
219 <213> ORGANISM: Homo sapiens
221 <400> SEQUENCE: 10
223 Gly Phe Ser Trp Ser
224 1               5
227 <210> SEQ ID NO: 11
228 <211> LENGTH: 51
229 <212> TYPE: DNA
230 <213> ORGANISM: Homo sapiens
233 <220> FEATURE:
234 <221> NAME/KEY: CDS
235 <222> LOCATION: (1)..(51)
236 <223> OTHER INFORMATION: Sequence from human antibody generated in mouse.
238 <400> SEQUENCE: 11
239 gaa atc gat tat aga gga agc acc aac tac aac ccg tcc ctc aag agt       48
240 Glu Ile Asp Tyr Arg Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys Ser
241 1               5                   10                  15
243 cga                                                                   51
244 Arg
248 <210> SEQ ID NO: 12
249 <211> LENGTH: 17
250 <212> TYPE: PRT
251 <213> ORGANISM: Homo sapiens
253 <400> SEQUENCE: 12
255 Glu Ile Asp Tyr Arg Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys Ser
256 1               5                   10                  15
259 Arg
263 <210> SEQ ID NO: 13
264 <211> LENGTH: 21
265 <212> TYPE: DNA
266 <213> ORGANISM: Homo sapiens
269 <220> FEATURE:
270 <221> NAME/KEY: CDS
271 <222> LOCATION: (1)..(21)
272 <223> OTHER INFORMATION: Sequence from human antibody generated in mouse.
274 <400> SEQUENCE: 13
275 ggg ggg ccc cgc ttt gac tac                                          21
276 Gly Gly Pro Arg Phe Asp Tyr
277 1               5
280 <210> SEQ ID NO: 14
281 <211> LENGTH: 7
282 <212> TYPE: PRT
283 <213> ORGANISM: Homo sapiens
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285 <400> SEQUENCE: 14
287 Gly Gly Pro Arg Phe Asp Tyr
288 1               5
291 <210> SEQ ID NO: 15
292 <211> LENGTH: 345
293 <212> TYPE: DNA
294 <213> ORGANISM: Homo sapiens
297 <220> FEATURE:
298 <221> NAME/KEY: CDS
299 <222> LOCATION: (1)..(345)
300 <223> OTHER INFORMATION: Sequence from human antibody generated in mouse.
301       V-segment: 4-34, D-segment: unknown, J-segment: JH4b
303 <220> FEATURE:
W--> 304 <221> NAME/KEY: CDR1
305 <222> LOCATION: (91)..(102)
307 <220> FEATURE:
W--> 308 <221> NAME/KEY: CDR2
309 <222> LOCATION: (148)..(199)
311 <220> FEATURE:
W--> 312 <221> NAME/KEY: CDR3
313 <222> LOCATION: (191)..(312)
315 <400> SEQUENCE: 15
316 cag gtg cga cta cag cag tgg ggc gca gga ctg ttg aag cct tcg gag      48
317 Gln Val Arg Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
318 1               5                   10                  15
320 acc ctg tcc ctc acc tgc gct gtc ttt ggt ggg tcc ttc agt ggt ttc      96
321 Thr Leu Ser Leu Thr Cys Ala Val Phe Gly Gly Ser Phe Ser Gly Phe
322             20                  25                  30
324 tcc tgg agc tgg atc cgc cag acc cca ggg aag ggg ctg gag tgg atc     144
325 Ser Trp Ser Trp Ile Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Ile
326         35                  40                  45
328 ggg gaa atc gat tat aga gga agc acc aac tac aac ccg tcc ctc aag     192
329 Gly Glu Ile Asp Tyr Arg Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
330     50                  55                  60
332 agt cga gtc acc ata tta aga gac acg tcc agg agc cag ttc tcc ctg     240
333 Ser Arg Val Thr Ile Leu Arg Asp Thr Ser Arg Ser Gln Phe Ser Leu
334 65                  70                  75                  80
336 aag ttg agc tcc gtg acc gcc gcg gac tcg gct gtg ttt tat tgt gcg     288
337 Lys Leu Ser Ser Val Thr Ala Ala Asp Ser Ala Val Phe Tyr Cys Ala
338             85                  90                  95
340 aga ggg ggg ccc cgc ttt gac tac tgg ggc cag gga acc ctg gtc acc     336
341 Arg Gly Gly Pro Arg Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr
342             100                 105                 110
344 gtc tcc tca                                                         345
345 Val Ser Ser
346             115
349 <210> SEQ ID NO: 16
350 <211> LENGTH: 115
351 <212> TYPE: PRT
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 06/30/2006
PATENT APPLICATION: US/10/563,976A   TIME: 10:24:40

Input Set : **E:\HOI-14402.ST25.txt**
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:17; N Pos. 33
Seq#:23; N Pos. 102

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:17,18,25,26

VERIFICATION SUMMARY   DATE: 06/30/2006
PATENT APPLICATION: **US/10/563,976A**   TIME: 10:24:40

Input Set : **E:\HOI-14402.ST25.txt**
Output Set: **N:\CRF4\06302006\J563976A.raw**

```
L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:123 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7
L:127 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7
L:131 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7
L:304 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:15
L:308 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:15
L:312 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:15
L:407 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:495 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:23
L:504 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:23
L:508 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:23
L:520 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:96
L:694 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:31
L:698 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:31
L:702 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:31
L:875 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:39
L:879 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:39
L:883 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:39
L:1056 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:47
L:1060 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:47
L:1064 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:47
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